

5 for each of the determined resources, determining a business
6 value of having the resource service the work item, the business value
7 being a measure of qualification of the resource for servicing the work item
8 based on skills of the resource and skill requirements of the work item;
9 for each of the determined resources, determining a value to
10 the resource of servicing the work item, the value to the resource being a
11 measure of how the resource is spending time compared with other
12 resources and goals of the individual resource; and
13 selecting a determined resource that has a best combined
14 value of the business value and the value to the resource, to serve the
15 work item.

Amend claim 9:

1 9. (Amended) A method of selecting a resource for a work
2 item, comprising:
3 determining available resources that possess skills needed by
4 the work item;
5 for each of the determined resources, determining a business
6 value comprising a sum across all skills of a product of a skill level of the
7 resource in the skill and a skill weight of the work item for the skill;
8 for each of the determined resources, determining a resource
9 treatment value, the resource treatment value being a measure of how the
10 resource is spending time compared with other resources and goals of the
11 individual resource, the resource treatment value comprising a sum across
12 all resource treatments of a product of a value of the resource for the
13 resource treatment and a weight of the work item for the resource
14 treatment; and
15 selecting a determined resource that has a best combined
16 score of its business value and its resource treatment value, to serve the
17 work item

Amend claim 13:

1 13. (Amended) A method of selecting a work item for a
2 resource, comprising:
3 determining available work items that need skills possessed by
4 the resource;
5 for each of the determined work items, determining a business
6 value of having the resource service the work item, the business value
7 being a measure of qualification of the resource for servicing of the work
8 item based on skills of the resource and skill requirements of the work
9 item;
10 for each of the determined work items, determining a value to
11 the work item of being serviced by the resource, the value to the work item
12 being a measure of how the work item is treated compared to other work
13 items and treatment goals of the individual work item; and
14 selecting a determined work item that has a best combined
15 value of the business value and the value to the work item to be served by
16 the resource.

Amend claim 21:

1 21. (Amended) A method of selecting a work item for a
2 resource, comprising:
3 determining available work items that need skills possessed by
4 the resource;
5 for each of the determined work items, determining a business
6 value comprising a sum across all skills of a product of a skill level of the
7 resource in the skill and a skill weight of the work item for the skill;
8 for each of the determined work items, determining a work item
9 treatment value, the work item treatment value being a measure of how
10 the work item is treated compared to other work items and treatment goals
11 of the individual work item, the work item treatment value comprising a
12 sum across all work item treatments of a product of the value of the work
13 item for the work item treatment and a weight of the work item for the work
14 item treatment; and

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15 selecting a determined work item that has a best combined
16 score of its business value and work item treatment value, to be served by
17 the resource.

Amend claim 28:

1 28. (Amended) An apparatus for selecting a resource for a
2 work item, comprising;
3 means for determining available resources that possess skills
4 needed by the work item;
5 means for determining, for each of the determined resources, a
6 business value of having the resource service the work item, the business
7 value being a measure of qualification of the resource for servicing the
8 work item based on skills of the resource and skill requirements of the
9 work item;
10 means for determining, for each of the determined resources, a
11 value to the resource of servicing the work item, the value to the resource
12 being a measure of how the resource is spending time compared with
13 other resources and goals of the individual resource; and
14 means for selecting a determined resource that has a best
15 combined value of the business value and the value to the resource, to
16 serve the work item.

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Amend claim 29:

1 29. (Amended) An apparatus for selecting a resource for a
2 work item, comprising:
3 means for determining available resources that possess skills
4 needed by the work item;
5 means for determining, for each of the determined resources, a
6 business value comprising a sum across all skills of a product of a skill
7 level of the resource in the skill and a skill weight of the work item for the
8 skill;
9 means for determining, for each of the determined resources, a
10 resource treatment value, the resource treatment value being a measure

11 of how the resource is spending time compared with other resources and
12 goals of the individual resource, the resource treatment value comprising
13 a sum across all resource treatments of a product of a value of the
14 resource for the resource treatment and a weight of the work item for the
15 resource treatment; and

16 means for selecting a determined resource that has a best
17 combined score of its business value and its resource treatment value, to
18 serve the work item.

Amend claim 30:

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1 30. (Amended) An apparatus for selecting a work item for a
2 resource, comprising:

3 means for determining available work items that need skills
4 possessed by the resource;

5 means for determining, for each of the determined work items,
6 a business value of having the resource service the work item, the
7 business value being a measure of qualification of the resource for
8 servicing the work item based on skills of the resource and skill
9 requirements of the work item;

10 means for determining, for each of the determined work items,
11 a value to the work item of being serviced by the resource, the value to the
12 work item being a measure of how the work item is treated compared to
13 other work items and treatment goals of the individual work item; and

14 means for selecting a determined work item that has a best
15 combined value of the business value and the value to the work item to be
16 served by the resource.

Amend claim 31:

1 31. (Amended) An apparatus for selecting a work item for a
2 resource, comprising:

3 means for determining available work items that need skills

4 possessed by the resource;

5 means for determining, for each of the determined work items,
6 a business value comprising a sum across all skills of a product of a skill
7 level of the resource in the skill and a skill weight of the work item for the
8 skill;

9 means for determining, for each of the determined work items,
10 a work item treatment value, the work item treatment value being a
11 measure of how the work item is treated compared to other work items
12 and treatment goals of the individual work item, the work item treatment
13 value comprising a sum across all work item treatments of a product of the
14 value of the work item for the work item treatment and a weight of the
15 work item for the work item treatment; and

16 means for selecting a determined work item that has a best
17 combined score of its business value and work item treatment value, to be
18 served by the resource.

Amend claim 32:

1 32. (Amended) An arrangement for selecting a resource for a
2 work item, comprising;

3 an effector of determining available resources that possess
4 skills needed by the work item;

5 an effector of determining, for each of the determined
6 resources, a business value of having the resource service the work item,
7 the business value being a measure of qualification of the resource for
8 servicing the work item based on skills of the resource and skill
9 requirements of the work item;

10 an effector of determining, for each of the determined
11 resources, a value to the resource of servicing the work item, the value to
12 the resource being a measure of how the resource is spending time
13 compared with other resources and goals of the individual resource; and

14 an effector of selecting a determined resource that has a best

15 combined value of the business value and the value to the resource, to
16 serve the work item.

Amend claim 33:

1 33. (Amended) An arrangement for selecting a resource for a
2 work item, comprising:
3 an effector of determining available resources that possess
4 skills needed by the work item;
5 an effector of determining, for each of the determined
6 resources, a business value comprising a sum across all skills of a
7 product of a skill level of the resource in the skill and a skill weight of the
8 work item for the skill;
9 an effector of determining, for each of the determined
10 resources, a resource treatment value, the resource treatment value being
11 a measure of how the resource is spending time compared with other
12 resources and goals of the individual resource, the resource treatment
13 value comprising a sum across all resource treatments of a product of a
14 value of the resource for the resource treatment and a weight of the work
15 item for the resource treatment; and
16 an effector of selecting a determined resource that has a best
17 combined score of its business value and its resource treatment value, to
18 serve the work item

Amend claim 34:

1 34. (Amended) An arrangement for selecting a work item for a
2 resource, comprising:
3 an effector of determining available work items that need skills
4 possessed by the resource;
5 an effector of determining, for each of the determined work
6 items, a business value of having the resource service the work item, the
7 business value being a measure of qualification of the resource for

8 servicing the work item based on skills of the resource and skill
9 requirements of the work item;
10 an effector of determining, for each of the determined work
11 items, a value to the work item of being serviced by the resource, the
12 value to the work item being a measure of how the work item is treated
13 compared to other work items and treatment goals of the individual work
14 item; and
15 an effector of selecting a determined work item that has a best
16 combined value of the business value and the value to the work item to be
17 served by the resource.

Amend claim 35:

1 35. (Amended) An arrangement for selecting a work item for a
2 resource, comprising:
3 an effector of determining available work items that need skills
4 possessed by the resource;
5 an effector of determining, for each of the determined work
6 items, a business value comprising a sum across all skills of a product of a
7 skill level of the resource in the skill and a skill weight of the work item for
8 the skill;
9 an effector of determining, for each of the determined work
10 items, a work item treatment value, the work item treatment value being a
11 measure of how the work item is treated compared to other work items
12 and treatment goals of the individual work item, the work item treatment
13 value comprising a sum across all work item treatments of a product of the
14 value of the work item for the work item treatment and a weight of the
15 work item for the work item treatment; and
16 an effector of selecting a determined work item that has a best combined
17 score of its business value and work item treatment value, to be served by
18 the resource.

Add the following new claims 36-59 to the application:

1 36. A computer-readable medium containing instructions
2 which, when executed in a computer, cause the computer to perform
3 selection of a resource for a work item, comprising:
4 determining available resources that possess skills needed by
5 the work item;
6 for each of the determined resources, determining a business
7 value of having the resource service the work item, the business value
8 being a measure of qualification of the resource for servicing the work item
9 based on skills of the resource and skill requirements of the work item;
10 for each of the determined resources, determining a value to
11 the resource of servicing the work item, the value to the resource being a
12 measure of how the resource is spending time compared with other
13 resources and goals of the individual resource; and
14 selecting a determined resource that has a best combined
15 value of the business value and the value to the resource, to serve the
16 work item.

1 37. The medium of claim 36 wherein:
2 determining a business value comprises
3 determining the business value weighted by a business value
4 weight corresponding to the work item;
5 determining a value to the resource comprises
6 determining the value to the resource weighted by a resource
7 value weight corresponding to the work item; and
8 selecting comprises
9 selecting a determined resource that has a best combined
10 value of the weighted business value and the weighted value to the
11 resource.

1 38. The medium of claim 37 wherein:
2 determining a business value comprises
3 determining a weighted business value as a product of (a) the
4 business value weight corresponding to the work item and (b) a sum of
5 products of a level of each said needed skill of the resource and a weight
6 of said needed skill of the work item; and
7 determining a value to the resource comprises
8 determining a weighted resource treatment value as a product
9 of (c) a resource treatment weight corresponding to the work item and (d)
10 a sum of products of each treatment of the resource and a weight of said
11 treatment of the resource.

fb 1 39. The medium of claim 38 wherein:
2 the sums of products are scaled sums, and
3 the treatments are scaled treatments.

1 40. The medium of claim 39 wherein:
2 selecting comprises
3 selecting the determined resource that has a highest sum of
4 the weighted business value and the weighted resource treatment value.

1 41. The medium of claim 38 wherein:
2 the resource treatments of a resource comprise a time since
3 the resource became available and a time that the resource has not spent
4 serving work items.

1 42. The medium of claim 41 wherein:
2 the treatments of the resource further comprise a measure of
3 an effect that serving of the work item would have on a goal of the
4 resource.

1 43. The medium of claim 42 wherein:
2 the measure of the effect comprises a difference between (a) a

3 distance of an actual allocation of worktime of the resource among skills
4 from a goal allocation of the worktime of the resource among the skills and
5 (b) a distance of an estimated allocation of the worktime of the resource
6 among the skills if the resource serves the work item from the goal
7 allocation.

1 44. A computer-readable medium containing instructions
2 which, when executed in a computer, cause the computer to perform
3 selection of a resource for a work item, comprising:
4 determining available resources that possess skills needed by
5 the work item;
6 for each of the determined resources, determining a business
7 value comprising a sum across all skills of a product of a skill level of the
8 resource in the skill and a skill weight of the work item for the skill;
9 for each of the determined resources, determining a resource
10 treatment value, the resource treatment value being a measure of how the
11 resource is spending time compared with other resources and goals of the
12 individual resource, the resource treatment value comprising a sum across
13 all resource treatments of a product of a value of the resource for the
14 resource treatment and a weight of the work item for the resource
15 treatment; and
16 selecting a determined resource that has a best combined
17 score of its business value and its resource treatment value, to serve the
18 work item

1 45. The medium of claim 44 wherein:
2 the resource treatments of a resource comprise a time since
3 the resource became available, a time that the resource has spent not
4 serving work items, and a measure of an effect that serving the work item
5 would have on a goal of the resource.

1 46. The medium of claim 44 wherein:
2 determining a business value comprises

3 determining a scaled business value comprising the business
4 value scaled by a first scaling factor that is common to all of the
5 determined resources;
6 determining a resource treatment value comprises
7 for each resource treatment, determining a scaled value of the
8 resource comprising the value of the resource for that resource treatment
9 scaled by a scaling factor that is common for that resource treatment to all
10 of the determined resources, and
11 determining a scaled resource treatment value comprising a
12 sum, scaled by a second scaling factor that is common to all of the
13 determined resources, across all resource treatments of a product of the
14 scaled value of the resource for the resource treatment and a weight of
15 the work item for the resource treatment; and
16 selecting comprises
17 selecting a determined resource that has a best sum of its
18 scaled business value and its scaled resource treatment value to serve
19 the work item.

1 47. The medium of claim 46 wherein:
2 each scaling factor comprises a fraction having in its
3 denominator a maximum value of the value to which said scaling factor
4 applies of any of the resources.

1 48. A computer-readable medium containing instructions
2 which, when executed in a computer, cause the computer to perform
3 selection of a work item for a resource, comprising:
4 determining available work items that need skills possessed by
5 the resource;
6 for each of the determined work items, determining a business
7 value of having the resource service the work item, the business value
8 being a measure of qualification of the resource for servicing of the work
9 item based on skills of the resource and skill requirements of the work
10 item;

11 for each of the determined work items, determining a value to
12 the work item of being serviced by the resource, the value to the work item
13 being a measure of how the work item is treated compared to other work
14 items and treatment goals of the individual work item; and
15 selecting a determined work item that has a best combined
16 value of the business value and the value to the work item to be served by
17 the resource.

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1 49. The medium of claim 48 wherein:
2 determining business value comprises
3 determining the business value weighted by a business value
4 weight corresponding to the work item;
5 determining a value to the work item comprises
6 determining the value to the work item weighted by a work item
7 value weight corresponding to the work item; and
8 selecting comprises
9 selecting a determined work item that has a best combined
10 value of the weighted business value and the weighted value to the work
11 item.

1 50. The medium of claim 49 wherein:
2 determining a business value comprises
3 determining a weighted business value as a product of (a) the
4 business value weight corresponding to the work item and (b) a sum of
5 products of a level of each said needed skill of the resource and a weight
6 of said needed skill of the work item; and
7 determining a value to the work item comprises
8 determining a weighted work item treatment value as a product
9 of (c) a work item treatment weight corresponding to the work item and (d)
10 a sum of products of each treatment of the work item and a weight of said
11 treatment of the work item.

1 51. The medium of claim 50 wherein:
2 the sums of products are scaled sums, and
3 the treatments are scaled treatments.

1 52. The medium of claim 51 wherein:
2 selecting comprises
3 selecting the determined work item that has a highest sum of
4 the weighted business value and the weighted work item treatment value.

1 53. The medium of claim 50 wherein:
2 the work item treatments of a work item comprise a time that
3 the work item has been waiting for service and an estimated time that the
4 work item will have to wait for service.

1 54. The medium of claim 53 wherein:
2 the treatments of a work item further comprise a time by which
3 the work item has exceeded its target wait time.

1 55. The medium of claim 53 wherein:
2 the estimated wait time that the work item will have to wait for
3 service comprises a product of (a) a ratio of a total number of work items
4 waiting for service and an average number of work items waiting for
5 service and (b) a sum of average wait times of individual said needed
6 skills each weighted by a ratio of the weight of said individual skill and a
7 sum of the weights of the needed skills.

1 56. A computer-readable medium containing instructions
2 which, when executed in a computer, cause the computer to perform a
3 selection of a work item for a resource, comprising:
4 determining available work items that need skills possessed by
5 the resource;
6 for each of the determined work items, determining a business
7 value comprising a sum across all skills of a product of a skill level of the

8 resource in the skill and a skill weight of the work item for the skill;
9 for each of the determined work items, determining a work item
10 treatment value, the work item treatment value being a measure of how
11 the work item is treated compared to other work items and treatment goals
12 of the individual work item, the work item treatment value comprising a
13 sum across all work item treatments of a product of the value of the work
14 item for the work item treatment and a weight of the work item for the work
15 item treatment; and
16 selecting a determined work item that has a best combined
17 score of its business value and work item treatment value, to be served by
18 the resource.

56 1 57. The medium of claim 56 wherein:
2 the work item treatments of a work item comprise a time that
3 the work item has spent waiting to be serviced, an estimated time that the
4 item will spend waiting to be serviced, and a time by which the work item
5 has exceeded its target waiting time.

1 58. The medium of claim 56 wherein:
2 determining a business value comprises
3 determining a scaled business value comprising the business
4 value scaled by a first scaling factor that is common to all of the
5 determined work items;
6 determining a work item treatment value comprises
7 for each work item treatment, determining a scaled value of the
8 work item comprising the value of the work item for that work item
9 treatment scaled by a scaling factor that is common for that work item
10 treatment to all of the determined work items, and
11 determining a scaled work item treatment value comprising a
12 sum, scaled by a second scaling factor that is common to all of the
13 determined work items, across all work item treatments of a product of the
14 scaled value of the work item for the work item treatment and a weight of
15 the work item for the work item treatment; and

16 selecting comprises
17 selecting a determined work item that has a best sum of its
18 scaled business value and its scaled work item treatment value, to be
19 served by the resource.

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1 59. The medium of claim 58 wherein:
2 each scaling factor comprises a fraction having in its
3 denominator a maximum value of the value to which said scaling factor
4 applies of any of the work items.

Remarks

Claims 1-35 were pending. Claims 25 and 26 have been canceled. Claims 36-59 have been added. Therefore, claims 1-24 and 27-59 are currently pending.

Claim objection and rejections under 35 U.S.C. §112

The Examiner objected to claims 25-27 for not making clear whether they are dependent or independent claims, rejected claims 25-27 under 35 U.S.C. §112, first paragraph, as not fully supported by the specification, and rejected claims 25-27 under 35 U.S.C. §112, second paragraph, for being characterized by functional limitations.

Applicant's attorney thanks Examiner Rebecca Bachner for a telephone interview held on September 10, 2002, to discuss these rejections. Upon reflection, the Examiner indicated that these rejections would be withdrawn. But she cautioned that claims 25 and 27 must not be capable of reading on performing the method "by hand," and that claim 26 must not be capable of being infringed without infringing the base claim(s) from which it depends.

Applicant believes that claims 25-27 already do meet these admonishments. However, in order to remove these issues from further contention, applicant has canceled claim 25, and has placed claim 26 in independent form as new claims 36-59. Since claim 27 already recites a